1884MNRAS..44..260.

Respecting the cause of this variation, the planet may be assumed to have dark belts on its surface similar to the belts of *Jupiter* and *Saturn*; should these belts break up so as to make one hemisphere darker than the other, the effect of axial rotation would be to produce variations in brightness above and below the mean, as observed; and then the period of variation would simply be the period of axial rotation.

Should such variations be noticed again, we could hardly assume that the positions of maximum and minimum brilliancy on the surface of the planet had remained unchanged; and therefore we could not use the preceding epochs for a more accurate determination of the period, without the greatest care at least.

It may be further remarked that the period is such that if the planet were observed night after night at nearly the same hour, the variations would escape notice under ordinary circumstances; and this allows us to assume that variations have occurred before, and will occur again; so that a watch should be kept upon the planet at hours differing from night to night.

Kempshot Observatory, Jamaica:
1883, *Dec.* 22.

Observations of the Occultation of Venus by the Moon, made at the Royal Observatory, Greenwich, 1884, *February* 29.

(*Communicated by the Astronomer Royal.*)

	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation.			Obs.
					h	m	s	
(*a*)	Disapp. First contact	Simms Eq.	178	Dark	3	2	50 12	W.C.
(*b*)	„	S.E. Eq.	220	„	3	2	51·19	M.
(*c*)	Last contact	Simms Eq.	178	„	3	3	18·12	W.C.
(*d*)	„	S.E. Eq.	220	„	3	3	13·53	M.

Notes.

(*a*) The time for first contact is probably accurate within one or two seconds. A decided piece had been cut off the *s.p.* (bright) limb of *Venus* at 3^s after the time noted, when I looked at the chronometer to verify the count of seconds.

(*c*) The time for last contact is, I think, accurate within 1^s. The time noted is that at which the last minute point of light had certainly disappeared—it was distinctly seen up to 1^s before the time noted, and all was over 1^s after, when I looked at the chronometer to verify the count. The Moon's dark limb was not seen, but the bright limb was easily visible, though very much fainter than *Venus*.

Clouds covered the sky till within 2^m or 3^m of the time of first contact, leaving only just time enough to get the planet into the field. W.C.

(*b*) Immediately before first contact, the chronometer was looked at in order to begin a new count, and on looking into the telescope again it was

1884MNRAS..44..260.

immediately noticed that there was a slight flattening of the limb of *Venus*. The dark limb of the Moon came on so fast that it was believed that the contact had been seen from its very commencement, but the time may possibly have been a little late. As the count had only just been commenced, there was no possibility of any error having been made in counting the beats.

(*d*) The last contact was observed at the thirty-first beat after $1^h\ 38^m\ 0^s{\cdot}0$ by the chronometer. The chronometer beats five beats to 2^s; resulting chronometer time is therefore $1^h\ 38^m\ 12^s{\cdot}4$. The chronometer was referred to before $1^h\ 38^m\ 16^s{\cdot}0$ after the disappearance of the last vestige of the planet. Image of planet at moment of occultation, steady; dark limb of Moon sharp and straight. M.

The clear aperture of the object-glass of the S.E. Equatorial is $12\frac{3}{4}$ inches, of the Simms Equatorial 6 inches.

The initials W.C. and M. are those of Mr. Christie and Mr. Maunder.

Royal Observatory, Greenwich:
1884, *March* 14.

Occultations Observed at Forest Lodge, Maresfield.

By Captain William Noble.

Occultation of Venus, 1884, *February* 29.

Clouds were driving across the sky up to the instant of disappearance, which phenomenon was not observed. At reappearance, however, the first glimpse of the planet's limb was caught at $2^h\ 53^m\ 48^s$ local sidereal time $= 4^h\ 18^m\ 15^s{\cdot}0$ local mean time, the gibbous limb of *Venus* separating sharply from that of the Moon at $2^h\ 54^m\ 9^s$ L. S. T. $= 4^h\ 18^m\ 36^s{\cdot}5$ L. M. T. This last determination may be regarded as one of considerable accuracy.

By some curious and inexplicable omission, no mention whatever of this interesting and important phenomenon is to be found in the *Nautical Almanac*.

Occultation of λ *Geminorum*, 1884, *March* 6.

The star disappeared instantaneously at the Moon's dark limb at $9^h\ 10^m\ 15^s{\cdot}4$ L. S. T. $= 10^h\ 10^m\ 5^s{\cdot}7$ L. M. T., and reappeared at the bright limb of the Moon at (very approximately) $10^h\ 12^m\ 30^s{\cdot}1$ L. S. T. $= 11^h\ 12^m\ 10^s{\cdot}2$ L. M. T.

Occultation of κ *Cancri*, 1884, *March* 8.

The star disappeared instantaneously at the Moon's dark limb at $9^h\ 27^m\ 10^s{\cdot}4$ L. S. T. $= 10^h\ 19^m\ 6^s{\cdot}1$ L. M. T. The reappearance was not observed.

In each case a power of 154 was employed on my 4·2-inch

© Royal Astronomical Society • Provided by the NASA Astrophysics Data System